Response to Office Action of June 11, 2008

Attorney Docket: NOTAR-040US

## <u>REMARKS</u>

#### Summary of Office Action

In the Office Action of June 11, 2008, the Examiner withdrew the objections to the Specification and Claims 1, 3, and 8. The Examiner also withdrew the rejection of Claims 1-9 under 35 U.S.C. § 112, second paragraph and the rejections of Claim 9 under 35 U.S.C. § 102(b)/103(a). However, the Examiner maintained the rejection of Claim 1 under 35 U.S.C. § 103(a) as being unpatentable over RU 2,103,418 (hereinafter referred to as "418") in combination with U.S. Patent No. 6,322,686 (hereinafter referred to as "Brown") and an article titled "Improvement of Lubricity of Water-Containing Fluid Based on Proxamine 385" (hereinafter referred to as "Kalinin"). The Examiner also maintained the rejection of Claims 3-8 under 35 U.S.C. § 103(a) as being unpatentable over 418 in combination with Brown and Kalinin, and further in view of U.S. Patent No. 5,871,631 (hereinafter referred to as "Ichiba"). Finally, the Examiner rejected Claims 1 and 3-8 under 35 U.S.C. § 112, second paragraph, as being indefinite. No other issues were presented.

### **Summary of Amendments**

Upon entry of the present Response to Office Action, Claim 1 will have been amended. As such, Claims 1 and 3-8 remain currently pending. By the present amendment, Applicant submits that the rejections have been overcome and respectfully requests reconsideration of the outstanding Office Action.

#### Applicant's Response

# 1. Section 103(a) Rejection of Claim 1

In the Office Action, the Examiner interprets claim 1 to require that the *initial* copolymer have a molecular weight of 3950 to 6450 and that the *final* copolymer therefore might have a molecular weight greater than 6450, such as the molecular weight of 7600 for proxamine-385. Office Action, Page 6. Furthermore, the Examiner posits that it would have been obvious to modify 418 to reach Applicant's claimed invention "because the molecular weight of the copolymer appears to be a mere optimization which solves no stated problems and produces no

Response to Office Action of June 11, 2008

Attorney Docket: NOTAR-040US

unexpected results." Office Action of December 10, 2007, Page 12. In the present Office Action, however, in response to Applicant's argument that the copolymer of Applicant's invention does result in unexpected benefits, the Examiner states that "the reason or motivation to modify the reference may often suggest what the inventor has done, but for a different purpose or to solve a different problem. It is not necessary that the prior art suggest the combination to achieve the same advantage or result discovered by the Applicants." Office Action, Pages 6-7.

Applicant's independent Claim 1 as currently amended recites, inter alia, "...said copolymer having a molecular weight of 3950 to 6450, said copolymer further having a number of ethylene oxide links-to-number of propylene oxide links ratio of 1.4-1.2:1.0 at initial buildup..."

Applicant respectfully submits that, as always intended and as better recited by this amendment, Applicant's invention as recited in independent Claim 1 is directed toward a copolymer that has an initial number of ethylene oxide links-to-number of propylene oxide links ratio of 1.4-1.2:1.0, but a final molecular weight of 3950 to 6450. This is better recited in the currently amended claim and this interpretation is clearly supported by the Examples in the specification. In particular, Examples 1 and 2, which are samples of Applicant's claimed invention, recite a molecular weight of the copolymer of 5000 and 6000, respectively. In contrast, Example 3, which utilizes the copolymer Proxamine 385 as described in 418, recites a molecular weight of the copolymer of 7600. Since this is the molecular weight of Proxamine 385 as taught by Kalinin as well, one would conclude that Applicant did not intend for the molecular weights when referring to Applicant's copolymer to be initial weights while referring to the molecular weights of the prior art as final weights. As such, Applicant respectfully submits that the molecular weights recited in Applicant's independent Claim 1 was, and is, directed toward the final molecular weight of the copolymer.

Since the molecular weight range recited in Applicant's independent claim 1 is a final property of the copolymer, Applicant respectfully submits that it does not properly read on copolymers having a greater molecular weight than 6450. Also, Applicant respectfully submits that modifying the 418 reference to reach Applicant's invention would not be an obvious optimization, because none of the cited references provide any teaching or suggestion that using a copolymer as claimed by Applicant would have beneficial results.

Response to Office Action of June 11, 2008

Attorney Docket: NOTAR-040US

Although the Examiner implies that even if the motivation to modify the reference to reach an applicant's invention is for a different purpose it might still be obvious, there is no motivation provided in any of the references to reach Applicant's claimed invention. The Examiner has only stated that her belief is that it appears to be a mere optimization absent any unexpected results. Applicant respectfully submits that Applicant's invention does in fact achieve unexpected results over the prior art. In particular, the Specification points out that the composition of the 418 reference does not provide good quality of coating and requires at least two coating passes and/or higher current densities (see, e.g., paragraph [0008], and results in problems with the control of foam during recirculation of the electrolyte (see, e.g., paragraphs [0007]-[0012] of specification.) In contrast, the composition containing the copolymer of the instant invention unexpectedly provides improved high quality electroplating coatings, controls foam formation and provides other benefits in electroplating that are not taught or suggested by the 418 reference (see, e.g., paragraphs [0011]-[0016].)

For example, in Comparison Example 3, it is shown that a composition using proxamine-385 instead of a copolymer according to the claimed invention produced an electroplated coating having properties of "matte, differs in tone, corrosion resistance is low" (paragraph [0038], and paragraphs [0037] and [0039].) In contrast, compositions similar to that of Comparison Example 3, but containing the particular copolymer as claimed, resulted in electroplated coatings that were "bright, without dullness and differences in tone and characterized by high uniformity of distribution and corrosion resistance" (paragraph [0033]) in Examples 1 and 2 (see, e.g., paragraphs [0033]-[0036].) The fact that select copolymers having the particular molecular weight and ethylene oxide to propylene oxide ratios could provide substantially improved results in the electroplating of tin is not taught or suggested by the prior references such as 418, and thus represents unexpected results showing the patentability of the claimed composition over the prior art.

Accordingly, Applicant submits that it would not have been obvious at the time the claimed invention was made to take the invention of 418 and modify it so as to reach the above-noted features of the present invention, and thus, the rejection of at least independent Claim 1 under 35 U.S.C. § 103(a) is improper and should be withdrawn.

Response to Office Action of June 11, 2008

Attorney Docket: NOTAR-040US

# 2. Section 103(a) Rejection of Claims 3-8

Applicant respectfully submits that the Claims 3-8 are allowable at least for the reason that these claims depend on allowable independent Claim 1 and because these claims recite additional features that further define the present invention. Because the 418 reference has been shown above to not render Applicant's invention obvious, it likewise cannot properly be used as a primary reference in these claims that depend from Applicant's non-obvious independent claim 1. Accordingly, Applicant respectfully requests withdrawal of this rejection of the claims.

## 3. Section 112, Second Paragraph, Rejection of Claims 1 and 3-8

The Examiner submits that Claim 1 is unclear in whether the molecular weight requirements and number of ethylene oxide links-to-number of propylene oxide links ratio ("links ratio") are initial buildup properties or the final required properties. Office Action, Page 10.

Applicant respectfully submits that the current amendment to Claim 1 clarifies this issue and renders Claim 1 definite. In particular, and as discussed above, the initial buildup requirement was, and is, only intended to be in relation to the links ratio and not toward the molecular weight. As is clear in the Examples listed in the Specification, the recited molecular weight is the final weight of the copolymer, and it is only the links ratio that is discussed as being an initial buildup property.

As such, Applicant respectfully submits that this current amendment has more clearly claimed Applicant's intended invention and is now definite. Withdrawal of this claim rejection is now believed to be proper and respectfully requested.

#### Conclusion

Applicant respectfully submits that each and every pending claim of the present invention meets the requirements for patentability under 35 U.S.C. §§ 112, 102, and 103, and respectfully requests that the Examiner indicate allowance of each and every pending claim of the present invention.

In view of the foregoing, it is submitted that none of the references of record, either taken alone or in any proper combination thereof, anticipate or render obvious Applicant's invention as

Response to Office Action of June 11, 2008

Attorney Docket: NOTAR-040US

recited in each of Claims 1 and 3-8. The references of record have been discussed and distinguished, while significant claim features of the present invention have been pointed out.

Accordingly, reconsideration of the outstanding Office Action and allowance of the present application and all the claims therein are respectfully requested and now believed to be appropriate.

If any additional fee is required, please charge Deposit Account Number 19-4330.

Respectfully submitted,

Date: November 7, 2008

By:

Customer No.: 007663

Kit M. Stetina

Registration No. 29,445

STETINA BRUNDA GARRED & BRUCKER

75 Enterprise, Suite 250 Aliso Viejo, California 92656 Telephone: (949) 855-1246

Fax: (949) 855-6371